

# SANITARY COMMISSION.

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## REPORT

OF A

COMMITTEE OF THE ASSOCIATE MEDICAL MEMBERS OF THE SAN-  
ITARY COMMISSION,

ON THE SUBJECT OF

## VENEREAL DISEASES,

WITH SPECIAL

REFERENCE TO PRACTICE IN THE ARMY AND NAVY.

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THE attention of the Sanitary Commission has been directed to the fact, that most of our Army Surgeons, now in the field, are unavoidably deprived of many facilities they have heretofore enjoyed for the consultation of standard medical authorities. It is obviously impossible to place within their reach anything that can be termed a medical library. The only remedy seems to be the preparation and distribution among the medical staff, of a series of brief essays or hand-books, embodying in a condensed form the conclusions of the highest medical authorities in regard to those medical and surgical questions which are likely to present themselves to surgeons in the field, on the largest scale, and which are, therefore, of chief practical importance.

The Commission has assigned the duty of preparing papers on several subjects of this nature, to certain of its associate members, in our principal cities, belonging to the medical profession, whose names are the best evidence of their fitness for their duty.

The following paper on "Venereal Diseases" belongs to this series, and is respectfully recommended by the Commission to the medical officers of our army now in the field.

FRED. LAW OLMSTED, *Secretary.*

WASHINGTON, *December 6th*, 1862.

# VENEREAL DISEASES.

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It is in the highest degree gratifying to be able to assert, upon the authority of the reports of the surgeons of the United States Army now in the field, that in modern times there has never been collected so large a body of men, among whom venereal diseases have prevailed to so small an extent. Since, however, this class of diseases is still a fruitful source of the disqualification of men for active service, the following attempt has been made, at the request of the Sanitary Commission, to embody, in as brief a space as possible, the teachings of modern science upon this subject, with special reference to the wants of army surgeons.

## SECTION I.

### PREVENTION OF VENEREAL DISEASES.

The following regulations, enforced in the Belgian army, have been found by experience to render venereal diseases "by far less frequent." So far as practicable, they are worthy of adoption in our own army.

1. Every soldier who contracts venereal disease, should be required to give the name and address of the woman who infected him; and if, upon examination, she be found diseased, her removal from the neighborhood should be enforced by the military authority.

2. Every inducement should be presented to lead men to report

themselves at the earliest possible moment after infection ; and delay should be visited with appropriate penalties.

3. No person with any venereal disease, however slight, should be allowed to remain in quarters, but be at once transferred to the hospital.

### THREE FORMS OF VENEREAL DISEASE.

There are three separate and distinct venereal diseases, viz., Gonorrhœa, the Simple Chancre, or Chancroid, with its attendant bubo, and Syphilis, including the initial lesion, or true chancre, and general symptoms. The first two are local, and the last a constitutional affection.

## SECTION II.

### GONORRHŒA AND ITS COMPLICATIONS.

1. The idea that gonorrhœa is dependent upon the syphilitic virus, and requires the use of mercurials, is without foundation. "To compel an unfortunate patient to undergo a course of mercury for a disease which does not require it, is a proceeding which reflects dishonor and disgrace upon the character of a surgeon."—(Sir Astley Cooper on the Use of Mercury in Gonorrhœa at Guy's Hospital.)

2. The treatment adapted for most cases of gonorrhœa consists of injections of a weak solution of some astringent, as from one to three grains of the sulphate, or acetate, of zinc to the ounce of water, repeated every four to six hours. Internally, a free purge at the outset, followed by laxatives if necessary to insure a daily evacuation from the bowels; alkaline mixtures, as solutions of the carbonates of soda or potassa, the acetate or chlorate of potassa, liquor potassæ, etc., and copaiva or cubebs.

3. When the symptoms are decidedly inflammatory, they should first be subdued by rest, cathartics, and low diet, before

resorting to injections. Injections are also contra-indicated in cases complicated with prostatitis, or cystitis.

4. Copaiva and cubebs should be given in somewhat full doses from the outset of their administration, but, at the same time, care should be taken not to carry them to the degree of intolerance. Excessive action upon the bowels should be restrained by opiates or astringents, in order that their active principle may be eliminated by the kidneys and pass off in the urine. They should be suspended if they occasion uncontrollable nausea or diarrhoea, a cutaneous eruption, severe pain in the kidneys, or general debility. Useful formulæ are the following: *R̄. Copaivæ, Spt. ætheris nitrici, āā ʒ j, Liquoris potassæ ʒ ij, Spt. lavandulæ comp. ʒ ij, Syrupi acaciæ ʒ vj. M. (Lafayette mixture.) A tablespoonful three times a day. R̄. Pulveris cubebæ ʒ viiss, Pulveris aluminis ʒ ss. M. This quantity to be taken daily in three doses.* Copaiva solidified by magnesia, (16 parts to 1 by weight,) and made into boluses, is a convenient mode of administration.

5. Medication, both external and internal, should be continued for ten days after all discharge has ceased.

6. The "abortive treatment" of gonorrhœa is adapted only to the commencement of the disease, before acute symptoms have set in. The best formula for its administration is a weak solution of nitrate of silver, (gr. j ad aquæ ʒ ij,) injected every two hours until the discharge becomes thin and watery, (which usually takes place within twenty-four hours,) and then omitted. Copaiva may be given simultaneously.

7. Chordee may be prevented by drachm doses of the tincture of camphor in water, taken at bedtime.

8. Commencing abscesses along the course of the urethra should be opened as soon as detected, even before fluctuation can be felt.

9. Acute prostatitis may be recognized by frequent and painful micturition, a throbbing pain in the perineum, and more or less general febrile excitement ; and the finger introduced *per anum* detects the enlarged and sensitive gland encroaching upon the rectum. Retention of urine frequently ensues, and requires the introduction of a catheter. When the instrument reaches the prostatic portion of the urethra, it excites great pain, and meets with an obstruction, due to the swollen gland, which is readily overcome by gentle and continued pressure, the handle of the catheter at the same time being depressed. This affection may terminate in resolution or in suppuration. The latter is announced by repeated chills ; and, if the abscess points toward the rectum, fluctuation may be detected by the finger introduced *per anum* ; more frequently, however, the matter tends to escape by the urethra.

10. Acute prostatitis is to be treated at its commencement by absolute rest, cups followed by poultices to the perineum, warm baths, and laxatives or clemata. The bladder should be evacuated, when necessary, with the catheter. If suppuration ensues, the abscess should be opened at an early period in whichever direction it tends to point, either with a knife through the rectum, or with the point of a catheter through the urethra.

11. Gonorrhœal cystitis is commonly limited to the neck of the bladder. Its symptoms are an urgent and frequent desire to empty the bladder ; sharp pain attending the flow of the last drops of urine ; the admixture of pus or blood with this fluid ; tenderness of the hypogastric region ; pain radiating to the groins, perineum, anus, and along the course of the urethra. There is usually less febrile excitement than in acute prostatitis.

12. Gonorrhœal cystitis is to be treated by rest, warm

baths, cups, and poultices to the hypogastrium, and, internally, by saline laxatives, the carbonates of soda and potassa, the acetate or chlorate of potassa, liquor potassæ, mucilage, flaxseed tea, and copaiva.

13. Gonorrhœal epididymitis (swelled testicle) is best treated by the horizontal posture; support of the scrotal organs; an emetico-cathartic, as a solution of Epsom salts and tartarized antimony, given in sufficient doses to act freely upon the bowels and maintain slight nausea; the application of leeches or cups just below the external abdominal ring, or bleeding from the scrotal veins, (the patient in a standing posture, and the scrotum compressed at its neck either with the hand or a fillet, and bathed with hot water until its veins are well distended;) and hot poultices, either of flaxseed or tobacco leaves, to the affected part. Evacuate any collection of fluid in the tunica vaginalis; and, even in the absence of any marked degree of hydrocele, Velpeau's treatment by means of multiple punctures with a lancet is worthy of a trial. When the acute symptoms have subsided, employ a more tonic regimen, and strap the affected testicle. Mild urethral injections are not contra-indicated by the occurrence of swelled testicle.

14. Gonorrhœal ophthalmia requires the strictest attention to cleanliness, the frequent use of an astrigent collyrium, freedom of the bowels, and, in most cases, tonics or stimulants. The eyes should be bathed every fifteen minutes with a solution of a drachm of alum to a pint of tepid water, or a decoction of poppy heads. The surgeon at his daily visit, after thoroughly cleansing the mucous membrane of its purulent secretion and the adherent masses of coagulum, should snip the chemosed portions of the ocular conjunctiva with scissors, and, after the bleeding has ceased, pencil the whole affected surface either with the solid crayon of nitrate of silver, or with a strong solution of the same salt,

(℞j—℥j ad aquæ ℥j,) washing off the residue with tepid water as soon as the surface has become whitened. In addition, a solution of five grains of nitrate of silver to the ounce of water may be dropped in the eye three or four times a day by the attendant. An active purge at the outset of treatment is desirable, and a daily evacuation of the bowels should be secured.

The great danger to vision is from ulceration and slough of the cornea, a tissue of low vitality, and a disastrous termination of the disease is favored by a low condition of the general system; hence all depressing agents, as venesection, mercurials, tartarized antimony, abstinence from food, etc., are to be avoided, and a nourishing diet, porter, ale, quinine, and other tonics to be enjoined. If ulceration of the cornea occurs, its progress may perhaps be arrested by lightly touching the surface with a pointed crayon of nitrate of silver; and the pupil should be kept constantly dilated with atropine or belladonna. Poultices of every kind are to be strictly prohibited, and the eye left uncovered. The discharge is highly contagious, and the utmost caution should be used to prevent its coming in contact with a sound eye.

### SECTION III.

#### THE SIMPLE CHANCRE AND ITS ATTENDANT BUBO.

1. The simple chancre, for many years confounded with true syphilis, is now known to be an entirely distinct affection, local in its character, and not requiring the use of mercury in its treatment. We are indebted for the demonstration of this fact to Bassereau, who, by an extensive comparison of individuals bearing venereal ulcers with the persons who infected them, has shown that when the disease remains local in the former, it was likewise so in the latter; and, on the other hand, that if it affects the general system in the one, it has done the same in the other;



and this result has been confirmed by Ricord, Fournier, Clerc, Caby, Dron, Rollet, and Diday, of France, by Mr. Henry Thompson, Mr. Henry Lee, and Victor de Meric, of London, and numerous other observers. Independently of clinical experience, therefore, the distinct nature of the simple chancre and of true syphilis rests upon the same proof that is relied upon by naturalists in the determination of species in the animal and vegetable kingdoms, viz: upon the immutability of their characteristic features in successive generations. But, above all, the recognition of this truth is sustained by clinical experience, which shows that a wide disparity exists between one class of cases in which, even without the administration of mercury, the disease disappears forever with the healing of the ulcer, and another class in which, without mercurials, general symptoms are sure to make their appearance, and, under the best directed treatment, relapses may occur at any period of the remaining life of the individual. Moreover, the explanation formerly given of this disparity, that it was due to a difference of idiosyncrasies, is found not to bear the test of examination; and we are forced to the conclusion that the term syphilis, as used until a very recent date, embraces two distinct affections. To the one which is local in its character, the name of simple, soft, or non-infecting chancre, or chancroid, is now given; the term syphilis being retained exclusively for the constitutional disease.

2. The diagnostic characters of the simple chancre and the infecting chancre (the initial lesion of true syphilis) are the following:

SIMPLE CHANCER.	INFECTING CHANCER.
<i>Origin.</i> —Always derived from a simple chancre, or virulent bubo. Its first appearance generally within a week after contagion.	<i>Origin.</i> —Always derived from an infecting chancre or secondary lesion. Its first appearance often from one to five weeks after contagion.

*Anatomical Characters.*—Generally multiple, either from the first or by successive inoculation.

An excavated ulcer, perforating the whole thickness of the skin or mucous membrane.

Edges abrupt and well-defined, as if cut with a punch, not adhering closely to subjacent tissues.

Surface flat but uneven, "worm eaten," wholly covered with grayish secretion.

No induration of base unless caused by caustic or other irritant, or by simple inflammation; in which case the engorgement is not circumscribed, shades off into surrounding tissues, and is of temporary duration.

*Pathological Tendencies.*—Secretion copious and purulent, inoculable.

Slow in healing. Often spreads and takes on phagedenic action.

May affect the same person an indefinite number of times.

*Characteristic Gland Affection.*—Ganglionic reaction absent in a large proportion of cases. When present, one gland acutely inflamed and generally suppurates. Pus often inoculable, producing a soft chancre.

*Prognosis.*—Always a local affection, and cannot infect the system. "Specific" treatment by mercury and iodine always useless, and, in most cases, injurious.

*Anatomical Characters.*—Generally single; multiple, if at all, from the first; rarely, if ever, by successive inoculation.

Frequently a superficial erosion; not involving the whole thickness of the skin or mucous membrane, of a red color, and nearly on a level with the surrounding surface. Sometimes an ulcer, when its

Edges are sloping, hard, often elevated, and adhere closely to subjacent tissues.

Surface hollowed or scooped out, smooth, sometimes grayish at centre.

Induration firm, cartilaginous, circumscribed, movable upon tissues beneath. Sometimes resembles a layer of parchment lining the sore. Generally persistent for a long period.

*Pathological Tendencies.*—Secretion scanty, chiefly serous; inoculable with great difficulty, if at all, upon the patient or upon any person under the syphilitic diathesis.

Less indolent than the chancreoid. Phagedena rarely supervenes and is generally limited.

One attack affords complete or partial protection against a second.

*Characteristic Gland Affection.*—All the superficial inguinal ganglia on one or both sides, enlarged and indurated; distinct from each other, freely movable; painless, and rarely suppurate. Pus never inoculable.

*Prognosis.*—A constitutional affection. Secondary symptoms, unless prevented or retarded by treatment, declare themselves in about six weeks from the appearance of the sore, and very rarely delay longer than three months.\*

\* The Pathology and Treatment of Venereal Diseases: including the results of recent investigations upon the subject. By F. J. Bumstead, M. D. 1861.—P. 394

3. When in doubt as to the nature of a venereal ulcer, treat it as a soft chancre, and keep the patient under observation until the period of incubation of general symptoms has passed. This rule is justified by the following considerations :

*a.* Statistics show that there are four simple to one infecting chancre ; hence, in a given case, the probabilities are in favor of the sore being of the former species.

*b.* Even if the sore should chance to be an infecting chancre, the administration of mercury will not prevent contamination of the general system, which has already taken place. Moreover, nothing is lost by delay, since syphilis is equally amenable to treatment after the appearance of secondary as after primary symptoms.

*c.* We are not justified in subjecting a patient to a mercurial course unless the necessity of it is apparent.

*d.* An immediate resort to mercurials leaves the case in doubt, since there are no means of determining whether the subsequent immunity is due to the treatment or to the nature of the sore ; and as it is not a matter of indifference whether a man has or has not in his system the germ of constitutional syphilis, no measures should be adopted which will leave the question undecided.

4. Cicatrization of a soft chancre may take place spontaneously, and is not hastened by the use of mercury. The most effective treatment consists in the destruction of the local sore by means of a powerful caustic ; and the earlier this is applied the better the chances of success. For this reason, and also for the purpose of preventing the communication of the disease to others, venereal ulcers should be destroyed at the earliest possible period, even before their nature has been determined.

5. For the destruction of simple chancres, nitrate of silver, as commonly employed, is unreliable, and, in most cases, inadequate.

Fuming nitric acid is the most convenient agent, and if the fall of the eschar fails to leave a healthy surface, the application should be repeated.

6. Cleanliness is of the first importance, and that dressing is commonly the best which accomplishes this in the most perfect manner. Any collection of the secretion upon the surface of the sore or upon neighboring parts, and the formation of scabs, should be avoided. Lotions are preferable to ointments, and may consist of simple water, a solution of tannic acid, (gr. iij ad ʒj,) a drachm of Labarraque's solution of chlorinated soda to two ounces of water, or a drachm of dilute nitric acid to eight ounces of water; and the dressing should be kept moist by being covered with oiled silk. Chancres beneath the prepuce will heal much more speedily, if the glans be uncovered and the sore dressed with wet lint covered with oiled silk and a circular bandage around the penis.

7. Phagedenic ulceration is far more likely to attack a simple than an infecting chancre, and is favored by a low state of the general system, however induced, and a by a scrofulous diathesis. It is to be treated by placing the patient in the most favorable hygienic condition, by a nourishing diet, tonics as the various preparations of iron in large doses, opium, and the free cauterization of the ulcer with nitric acid, Vienna paste, or the actual cautery. A solution of the potassio-tartrate of iron (ʒij ad aquæ ʒij) is a valuable local application. The internal use of mercury is highly injurious.

8. A simple chancre may or may not react upon the neighboring lymphatic glands. In the former case it gives rise to an inflammatory bubo, which may be either simple (containing simple pus) or virulent, (containing pus capable of inoculation.) The two varieties cannot readily be distinguished except by artificial inoculation, nor is their diagnosis of much practical im-

portance. The former may sometimes be aborted by rest, the application of tincture of iodine, or a strong solution of nitrate of silver, (5 iij ad aquæ ʒ j,) or by pressure by means of compressed sponge and a spica bandage. The latter always terminates in suppuration.

9. As soon as fluctuation can be detected, the abscess should be opened, either by several small punctures, followed by an injection of the cavity with a solution of sulphate of zinc, (gr. iij ad aquæ ʒ j,) or one part of tincture of iodine to four of water, and pressure, by means of a compress and spica bandage, be employed to insure adhesion of the walls; or the abscess should be freely opened by a *vertical* incision, (not parallel to the inguinal fold,) and the cavity, stuffed with lint, be left to heal by granulation.

10. Suppuration in a bubo affords a probability, although not an absolute certainty, that the accompanying chancre is of the simple, non-infecting species; since it is a general but not invariable rule, that syphilis does not follow an open bubo.

## SECTION IV.

### SYPHILIS.

1. The term "syphilis" is used here to the exclusion of the local affection just referred to. The symptoms of this disease are commonly divided into primary (including the initiatory chancre and accompanying induration of the glands) and general, (including the so-called secondary and tertiary manifestations.)

2. A true chancre is the initiatory lesion of acquired syphilis, appearing at the point where the virus entered the system, and separated from the general manifestations of the disease by a period of incubation pertaining to the latter. Analogy would show that a chancre, like the vaccine vesicle, is already the re-

sult of absorption of the virus and of infection of the constitution, and not a mere local disease; hence that its abortive treatment by destructive cauterization is incapable of averting general syphilis; hence, also, that it should receive the same general treatment as the later manifestations of the diathesis. Clinical experience confirms this view, since thorough destruction of a chancre six hours after its first appearance has failed to avert general symptoms. The period of incubation possessed by the true chancre, and the fact that it is not inoculable upon the patient, point to the same conclusion.

Experience also proves that the cicatrization of chancre, unlike that of a chancreoid, is hastened by the internal use of mercury. This sore, therefore, demands the same internal treatment as general syphilis.

3. The same form of local dressing may be used for the true chancre as for the chancreoid.

4. Induration of the neighboring lymphatic glands (indurated bubo) is one of the most valuable indications of an infecting chancre, and is always present, except, perhaps, in very rare instances. This bubo is commonly free from inflammatory action, and hence may pass unnoticed by the patient. It demands no special treatment, except in those unusual cases in which inflammation and suppuration take place, when the same treatment should be adopted as that already recommended for inflammatory buboes. The persistency of the induration for a long time after the primary sore has healed, is of great value in indicating the seat of the sore, and in unravelling the history of obscure cases.

5. There is always an interval between the appearance of the chancre and of the general manifestations of syphilis. This period of incubation of general symptoms, so-called, is fixed within certain bounds, like the incubation of other infectious diseases.

Its average duration is six weeks; it rarely exceeds three, and never six months; its shortest duration is about three weeks. A venereal ulcer will, therefore, be followed by general symptoms, if at all, probably within three and certainly within six months. It is to be understood that this rule applies only to cases in which the natural course of the disease has not been interfered with by specific treatment. The administration of mercury for the primary sore may retard or altogether prevent the appearance of general symptoms.

6. Early general symptoms, especially in the absence of treatment of the preceding chancre, are very uniform in their character, and commonly consist of an eruption of blotches or papulæ upon the skin, pustules upon the scalp, swelling of the glands of the nucha, opaline patches (mucous patches) upon the mucous membrane of the mouth and fauces, condylomata about the anus, and alopecia, attended often by general malaise, headache, and flitting pains in various parts of the body, (more particularly in the neighborhood of the joints,) which are most severe at night. These symptoms are especially worthy of remembrance, since they are often of so slight a character as not to fix the attention of the patient himself, and they should be carefully watched for after the occurrence of any venereal ulcer, the diagnosis of which was uncertain.

7. The secretion of secondary symptoms cannot, as a general rule, be inoculated upon the patient or upon any person under the syphilitic diathesis, but is contagious to individuals free from such taint. This rule is equally true of the secretion of the primary sore or chancre, and is the same that obtains in other infectious diseases, as small-pox, vaccinia, etc. Syphilis contracted from a secondary lesion pursues the same course as when contracted from a primary lesion, commencing in both cases with a chancre.

8. The remedies required for the treatment of syphilis are, for the most part, included under the head of mercurials, the compounds of iodine, and tonics.

9. Mercurials exercise their greatest power over the primary sore, and over early or so-called secondary symptoms. The action of the iodides is limited almost exclusively to the late or tertiary lesions. It is a mistake, however, to suppose that the compounds of iodine are alone sufficient for the permanent cure of even tertiary lesions, which are very prone to relapse, unless mercury has also entered into the treatment. The iodides are, therefore, to be regarded as temporary substitutes for, or as the adjuvants of, mercurials in the treatment of syphilis. They are of special value in syphilitic affections of the bones and periosteum; also in broken-down constitutions when mercurials are inadmissible until a better condition of the system has been secured.

10. The value of tonics in the treatment of syphilis cannot be overrated. Chemical analysis of the blood of syphilitic subjects shows an excess of albumen and a diminution of corpuscles; in short, a condition of chloro-anæmia obtains. The teachings of clinical experience are still more decisive. Nothing so obstructs the successful treatment of syphilis, and nothing so conduces to a relapse after an apparent cure, as a low condition of the general system. Hence the surgeon should aim to build up, and not to pull down; and this is to be accomplished by placing the patient under the most favorable hygienic influences, and by the use of tonics, as iron and quinine.

11. No one form of mercurial is adapted to all cases. The following formulæ are given as examples of those most frequently applicable:

<p>R. Pil. Hydrargyri ʒj. FerriSulph. Exsiccat ʒ ss. Divide into 30 pills. One three times a day.</p>	<p>R. Hydrarg. cum cretâ ʒ j. Quinæ Sulphatis ʒ ss. M. In 30 pills. One three times a day.</p>
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R. Hydrarg. Bichloridi gr. ij. Tinct. Gentian. Comp.  $\frac{\text{ss}}{\text{iv}}$ . M. A teaspoonful.

R. Hydrarg. Protiodidi gr. x. In 20 pills. One after each meal.

R. Hydrarg. Bichloridi gr. ij. Potass. Iodidi  $\frac{\text{ss}}{\text{ij}}$ . Tr. Gentian. Co.  $\frac{\text{ss}}{\text{ij}}$ . Aquæ  $\frac{\text{ss}}{\text{ij}}$ . M. A teaspoonful

R. Hydrarg. Bichloridi, Ammoniac Muriatis,  $\text{aa}$  gr. ij; dissolve in a sufficient quantity of water and add powdered cracker q. s. Syrupi Acaciæ q. s. M. In 36 pills.

12. The action of mercury upon the bowels should, if necessary, be restrained by the addition of opium or astringents; and, in some instances, the internal use of the remedy must be suspended and inunction employed.

13. Salivation is to be regarded as prejudicial to the success of treatment, and should be carefully avoided; although it is often justifiable and even desirable to excite slight tenderness of the gums, in order to be sure that the full effect of the remedy has been obtained. Salivation is most successfully treated by omitting the mercurial, securing freedom of the bowels, astringent gargles, and the internal administration of the chlorate of potassa, (5 j—ij per diem in solution.)

14. Mercurial cachexia is rarely induced when the remedy is judiciously employed, especially if combined with hygienic treatment and the use of tonics. If, however, in any case, after improvement continued for a time, the appetite begins to flag, and the patient complains of malaise and mental depression, the administration of mercurials should be suspended, and afterward resumed, if necessary to complete the cure.

15. The mode of using mercury which is the least likely to produce any of the above unpleasant symptoms is by inunction; and in very many cases this method will be found superior to all others. Its advantages are that it rarely salivates; that it leaves the intestinal canal undisturbed, and does not impair the appetite; and hence that it may be used in cases of general debility and of extreme susceptibility to the morbid action of the mineral,

when it is of the first importance to sustain the vital powers by a nourishing diet and the administration of tonics, without interference. About a drachm of the ointment should be rubbed into the axillæ and upon the inner surfaces of the thighs alternately every night, and the residue removed with warm water and soap the following morning.

16. The treatment of syphilis should invariably be conducted in a hospital. The dangers to be apprehended from exposure and hardship while pursuing a mercurial course, are too great to admit of this treatment being undertaken in camp.

17. Little need be said with regard to the use of iodide of potassium, except that this salt should enter largely into the treatment of the latter forms of syphilis, as syphilitic tubercles, gunmy tumors, deep ulcerations of the fauces and larynx, and the affections of the bones and periosteum; but although, in some cases, it may constitute the only remedy specially directed against the diathesis, which is admissible for a time, yet in all, mercurials should be sooner or later employed.

18. Treatment should be continued until all syphilitic symptoms have disappeared, graduating its severity according to the effect produced and the general condition of the patient; and even after the last manifestation of the diathesis has passed away, experience teaches that treatment must be still further prolonged if the patient would secure immunity for the future.

19. The limits of this essay do not permit of reference to the special treatment adapted to the various syphilitic lesions. It is desirable, however, to call attention to the importance in syphilitic iritis of keeping the pupil constantly dilated by means of a solution of belladonna, (one scruple of the extract to an ounce of water, strained,) dropped into the eye every few hours. Moreover, in the treatment of this affection, a combination of tonics with mild mercurials (as, for instance, quinine with the

gray powder) will yield far more satisfactory results than the latter alone.

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